

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) An Antenna ~~(1) characterised in that it includes~~ comprising:

a first ~~(2)~~ and a second ~~(3)~~ linear sub-antenna:

each having a plurality of sensors ~~(21-2M, 31-3N)~~ arranged so as to form first and second line portions, respectively, with each sensor generating a basic signal ~~(Si', Gj')~~;

wherein the angle between respective directional vectors of the first and second tangents to the midpoint respectively of the first and second line portions is between 30° and 150°;

an antenna processing device ~~(4, 5)~~ forming a plurality of combined signals ~~(VSi, VGj)~~ for each line portion, which signal is a combination of basic signals from the sensors of this line portion;

a signal processing device ~~(6, 7)~~ generating useful combined signals ~~(TSi, TGj)~~ by filtering the noise of the combined signals coming from each line portion;

a device ~~(8)~~ for calculating normalized correlation coefficients ~~(Cij)~~ between the useful combined signals of the first line portion and the useful combined signals of the second line portion;

a device ~~(8)~~ generating a detection signal ~~(Rij)~~ when a normalised correlation coefficient exceeds a detection threshold.

2. (Currently amended) The Antenna according to claim 1, ~~characterised in that it also includes~~ further comprising a target detection device, comparing each calculated normalised correlation coefficient with an associated target detection threshold, detecting and locating a target when a correlation coefficient exceeds said associated target detection threshold.

3. (Currently amended) The Aantenna according to claim 2, ~~characterised in that it includes further comprising~~ a processing device (9) for processing the detection signal and the correlation coefficients generating information concerning the detected target.

4. (Currently amended) The Aantenna according to claim 3, ~~characterised in that wherein~~ the information generated includes the distance, the elevation angle, the bearing and the speed of the target.

5. (Currently amended) The Aantenna according to claim 3 or 4, ~~characterised in that it includes further comprising~~ a device (10) displaying the information generated.

6. (Currently amended) The Aantenna according to claim 1 ~~any one of the previous claims, characterised in that wherein~~ each sensor includes a plurality of elementary sensors selected from the group consisting of radar, radioelectric and electromagnetic sensors, hydrophones, transducers, microphones, ultrasound sensors, accelerometers, and optical and infrared sensors.

7. (Currently amended) The Aantenna according to claim 6, ~~characterised in that wherein:~~

the elementary sensors are transmissive;

the data processing device processes the combined signals according to the signal transmitted by each sensor, ~~which wherein~~ processing includes, ~~for example,~~ a pulse compression.

8. (Currently amended) The Aantenna according to claim 6, ~~characterised in that it also includes further comprising~~ a transmitter, wherein the data processing device processes the combined signals according to the signal transmitted by the transmitter, ~~which wherein~~ processing includes, ~~for example,~~ a pulse compression.

9. (Currently amended) The Antenna according to claim 1 ~~any one of the previous claims, characterised in that~~ wherein the first and second line portions are curves without an inflection point.

10. (Currently amended) The Antenna according to claim 1 ~~any one of the previous claims, characterised in that~~ wherein the first and second line portions are straight and oriented respectively in elevation angle and bearing.

11. (Currently amended) The Antenna according to claim 10, ~~characterised in that~~ wherein the straight line portions are not parallel.

12. (New) The antenna according to claim 4, further comprising a device displaying the information generated.

13. (New) The antenna according to claim 5, wherein each sensor includes a plurality of elementary sensors selected from the group consisting of radar, radioelectric and electromagnetic sensors, hydrophones, transducers, microphones, ultrasound sensors, accelerometers, and optical and infrared sensors.